Before the

Federal Communications Commission

Washington, DC 20554

In the Matter of

Advanced Television Systems and Their Impact upon Existing Television Broadcast Service	))))	MM Docket No. 87-268

Comments of

KSCI-TV

1. Coverage Area and Power Limits

Stations should have the right to continue to provide interference free service to their present grade B area where ever possible. The efforts to replicate a VHF stations coverage with an UHF frequency appears to have many problems. The high power levels recommended by the FCC is probably not attainable with present technology and would cause interference to other NTSC and DTV stations.

We recommend that power be limited to what would be needed to provide a quality signal to an area limited by the Effective Radio Horizon of the transmitted DTV frequency. Stations should be allowed to fill the remaining areas with multiple low power translators or on channel repeaters. Application for these repeaters should be simple and be able to be filed at any time.

2. Core Spectrum and Channel Relocation

We understand and support the concept of a Core Spectrum. Excess spectrum should be returned and used for other purposes but enough spectrum must be maintained to provide an interference free transition and continue operation of the digital television system.

DTV should be implemented in a core spectrum of contiguous UHF channels. This simplifies receiver design and receiver antenna problems. In many major markets channel 14 through 20 have already been assigned to and are used by Land Mobile Service. It does not appear to be practical to assign a DTV station adjacent to Land Mobile Frequencies without causing interference to the Land Mobile adjacencies.

We recommend that the DTV Core Spectrum be modified to channels 22 through 66. This releases the present VHF spectrum and makes channels 14 through 21 contiguous with existing Land Mobile spectrum now ending at 470 Mhz. The release of channels 14 through 21 will provide interference-free service to the Land mobile users. Channel 67 through 69 would also be released, thus retaining the same number of channels available for broadcasting as recommended by the FCC.

3. Limit Power During Transition

In order to minimize interference, high differential power levels between stations is undesirable. We recommend that, during the transition period, all stations in the market be assigned the same Effective Radiated Power adjusted for free air attenuation of the higher frequencies.

4. Co-Location

We favor the co-location of all transmitters within a market to a common site. In Los Angeles, the common site would be Mt. Wilson. The stations in the market that are presently not on Mt. Wilson are on other sites because of old NTSC taboos. These stations should not continue to be penalized because of an old standard. KSCI would like to move its DTV transmission facilities to Mt. Wilson.

If all stations in the market were co-located, all receive antenna would only need to be pointed in one direction. This would better serve the viewing public.

Due to the large number of stations serving Los Angeles and the surrounding areas, there are not enough interference free channels to provide each existing station with an acceptable DTV channel. Co-locating all DTV stations in the market at one site would help reduce interference and could provide more available channels.

5. Different Transmission Site

If a station moves its DTV transmitter to a different site which is co-located with the other stations in the market, it should be allowed to use repeaters to provide service to areas presently served but not from the new Co-located site. Service from these repeaters should be considered equivalent to the main transmitter.

6. New Stations

New stations that have not yet started actual construction should be assigned only one frequency. The new station construction permits should be extended to the time limit that is given present NTSC stations to construct their DTV facility. This procedure will save at least two frequencies in the Los Angeles area.

7. Low Power

Allocations for translators and On-Channel repeaters should be given a priority over other low power users. Translators are used to provide the signal of a full power station to viewers who can not receive the full power station because of terrain factors. Priority must also be given to a station which is applying to use a LPTV to cover an area not serviced because of the change to DTV.

Displaced LPTV stations should be able to file for non-window displacement relief without concern of competing applications. LPTV stations should not have to change their operation until they cause interference to the new DTV station.

Because translators are normally located in mountainous areas, flat earth interference calculations are not relevant. Terrain shielding must be considered to optimize the use of this spectrum.

8. Land Mobile

In the FCC table of proposed allotments KSCI was assigned channel 19 for its DTV operation. KSCI does not believe it is possible to operate a full power DTV transmitter on channel 19 in the Los Angeles area without causing interference to the Land Mobile operations presently assigned to channel 20. The Land Mobile operations have repeaters on the same site as the KSCI transmitter. The power to transmit a DTV signal will be much greater than that used for Land Mobile. The Land Mobile repeaters will be de-sensitized and become non-operational. Unless the FCC will protect KSCI from interference complaints from the Land Mobile users, we request that the allotment assignment be reconsidered.

In the Los Angeles area, Land Mobile users operate on channel 14, 16 and 20. KSCI is presently transmitting on channel 18. Because of adjacent channel spacing it is not possible to assign any DTV stations below channel 22. Removing the 8 channels from the 44 recommended by the FCC for the Core Spectrum leaves only 36. There are 17 operating station and 2 construction permits in the Los Angeles Market. Considering other interference problems and the need to protect other markets such as San Diego and the Mexican border there are not enough channels to share the Core Spectrum with Land Mobile in the Los Angeles area. Earlier in our comments we suggested that the recommended Core Spectrum be modified to begin at channel 22 and be contiguous through channel 66. Assigning all DTV allotments above channel 21 will protect the present Land Mobile users and will provide maximum utilization of those channels in the metropolitan areas.

If the FCC does not realign the Core Spectrum, Land Mobile Communications on Channel 20 should be reassigned to channel 15 in the Los Angeles area. Moving Land Mobile from this one channel will make channels 19, 20 and 21 available for DTV transmission.

9. Computer Model

Designing a computer model to solve all the allotment problems in the United States is a very complicated program. The program could be very much simplified by first manually calculating the options in the congested markets such as Los Angeles. Markets surrounding these areas will have to be analyzed secondarily. The protection by terrain, antenna patterns and the normal viewing population should be considered to maximize the interference free assignments.

10. Technical Concerns.

In order to reduce interference between stations, carriers and subcarriers of all NTSC and DTV transmitters should be referenced to a common frequency standard such as the GPS System

11. Sample Allocation Table

The following table is an example using the previous concepts to build an allocation table. In this example only one station in all of Southern California would not be in the modified core spectrum. Interference between neighboring communities have been reduced as compared to both the FCC plan and the MSTV plan. There is no interference to the present Land Mobile users.

This table was prepared only as a starting point for the allocation of DTV channels. Actual assign channels should be coordinated by all of the local stations.

State	City of License	NTSF Channel	FCC DTV Channel	LABCTS DTV Channel
California	Anaheim	56	38	65
California	Avalon	54	31	54
California	Barstow	64	44	29
California	Corona	52	15	53
California	Huntington Beach	50	49	60
California	Los Angeles	2	48	43
California	Los Angeles	4	32	35
California	Los Angeles	5	33	25
California	Los Angeles	7	53	48
California	Los Angeles	9	47	66
California	Los Angeles	11	59	38
California	Los Angeles	13	21	36
California	Los Angeles	22	60	23
California	Los Angeles	28	27	27
California	Los Angeles	34	35	33
California	Los Angeles	58	41	59
California	Los Angeles	68	36	
California	Ontario	46	67	45
California	Oxnard	63	24	24
California	Palm Springs	36	57	49
California	Palm Springs	42	43	55
California	Rancho Palos Verdes	44	45	44
California	Riverside	62	26	26
California	San Bernardino	18	19	32
California	San Bernardino	24	25	57
California	San Bernardino	30	55	67
California	San Diego	8	23	49
California	San Diego	10	29	55
California	San Diego	15	17	61
California	San Diego	39	40	31
California	San Diego	51	52	47
California	San Diego	69	46	63
California	Santa Ana	40	66	41
California	Santa Barbara	3	51	50
California	Santa Barbara	38	22	39
California	Twenty Nine Palms	31	28	28
California	Ventura	57	43	51

WHEREFORE, THE PREMISES CONSIDERED, KSCI-TV respectfully requests the Federal Communication Commission to act in a manner fully consistent with the foregoing statement.

Respectfully submitted,

KSCI-TV

By: _____
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Director of Engineering.

Dated: December 6, 1996